

coating on the transparent substrate based on the maximum usage temperature; and forming a coating on at least a portion of a transparent plastic substrate at a temperature greater than or equal to the minimum coating temperature; wherein: the maximum usage temperature is at least 90°C; and determining a minimum coating temperature comprises identifying a temperature greater than or equal to a temperature 20°C less than the maximum usage temperature" (emphasis added). Yang does not disclose or suggest such a process.

Claim 1 requires that a minimum coating temperature for forming a coating on a transparent substrate be determined based on a maximum usage temperature of the substrate. Yang discloses forming a coating "at a temperature at least 20°C below the glass transition temperature." See Yang, page 2, line 58 to page 3, line 1. While Yang may disclose determining a coating temperature based on a glass transition temperature of a substrate, Yang does not disclose determining a coating temperature based on a maximum usage temperature of the substrate, which is different from the maximum usage temperature. For example, polycarbonate is indicated to have a glass transition temperature of about 125 to 135 °C. See, e.g., Yang, page 3, line 1; present specification, page 3, lines 14 to 17. By contrast, transparent plastic substrates used in motor vehicles or aircraft may have maximum usage temperatures of 90 to 100 °C. See, e.g., present specification, page 2, lines 3 to 5.

The Office Action asserts that "one of ordinary skill in the art would not utilize a polycarbonate substrate at temperatures exceeding the thermal damage temperature, and thus, would be the maximum temperature of usage." See Office Action, page 2. This assertion is simply incorrect. Even if the maximum usage temperature cannot exceed the thermal damage temperature, this does not mean that the maximum usage temperature is the same as the thermal damage temperature. In many instances, the maximum usage temperature may be well below the thermal damage temperature, and the maximum usage temperature may differ from application to application even if the same materials are used. That is, the maximum

usage temperature depends on the application of the substrate, not the material from which it is made. *See* present specification, page 1, line 37 to page 2, line 9. Deference must be given to the manner in which the term "maximum usage temperature" is used in the present specification. *See* MPEP §2111 (stating that pending claims must be given their broadest reasonable interpretation consistent with the specification). Applicants have discovered a process in which coating temperature is determined based on the intended application of a coated substrate. Yang does not remotely disclose or suggest such a process.

Accordingly, the processes of Yang and claim 1 involve determining coating temperatures based on different parameters. Claim 1 affirmatively requires that the coating temperature is determined based on maximum usage temperature (not glass transition temperature or thermal damage temperature as in Yang). Yang does not disclose or suggest such a "determining" step. Even if coating according to the process of Yang and the process of claim 1 were to take place at the same temperature, the process of Yang does not render claim 1 unpatentable, because Yang does not disclose or suggest determining a coating temperature based on a maximum usage temperature. This difference in the "determining" steps must be accounted for to sustain the outstanding rejections.

The present inventors have discovered a method for slowing down or eliminating the formation of cracks in plastic substrates, e.g., windows, even when the plastic substrates are used at high temperatures, by determining coating temperature based on maximum usage temperature. *See, e.g.*, present specification, page 2, lines 11 to 15. Yang does not disclose or suggest the method steps of claim 1, or recognize the benefits stemming therefrom.

As explained, claim 1 would not have been rendered obvious by Yang. Claims 2-7, 9 and 10 depend from claim 1 and, thus, also would not have been rendered obvious by Yang. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Yang and Hunt

The Office Action rejects claim 8 under 35 U.S.C. §103(a) over Yang in view of WO 01/02622 to Hunt et al. ("Hunt"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Yang fails to disclose or suggest each and every feature of claim 1. Hunt does not remedy the deficiencies of Yang. Hunt is cited for its alleged disclosure of forming multiple coatings. *See* Office Action, pages 5 to 6. However, Hunt, like Yang, fails to disclose or suggest determining a minimum coating temperature for forming a coating on a transparent substrate based on a maximum usage temperature of the substrate. Accordingly, the combination of references fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 would not have been rendered obvious by Yang and Hunt. Claim 8 depends from claim 1 and, thus, also would not have been rendered obvious by Yang and Hunt. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Yang and Reed

The Office Action rejects claim 12 under 35 U.S.C. §103(a) over Yang in view of WO 89/01957 to Reed et al. ("Reed"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Yang fails to disclose or suggest each and every feature of claim 1. Reed does not remedy the deficiencies of Yang. Reed is cited for its alleged disclosure of automobile lights formed from polycarbonate. *See* Office Action, pages 7 to 8. However, Reed, like Yang, fails to disclose or suggest determining a minimum coating temperature for forming a coating on a transparent substrate based on a maximum usage temperature of the substrate. Accordingly, the combination of references fails to disclose or suggest each and every feature of claim 1.

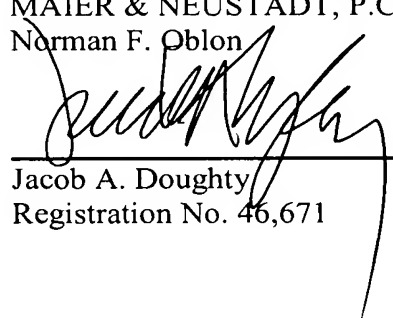
As explained, claim 1 would not have been rendered obvious by Yang and Reed.  
Claim 12 depends from claim 1 and, thus, also would not have been rendered obvious by  
Yang and Reed. Accordingly, reconsideration and withdrawal of the rejection are  
respectfully requested.

Conclusion

For the foregoing reasons, Applicants submit that claims 1-10 and 12 are in condition  
for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

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